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ABSTRACT

Responses to a followup request for survey completion provided information about reasons for nonresponse by the target audience. Few studies of nonresponse have relied on reasons given by those who did not choose to respond; although not intentionally gathered, the data provide insights into nonresponse. An electronic mail survey was sent to 452 college deans, and 232 eventually responded. In all, there were four reminders, two by postcard and two by e-mail. Fifty-five deans replied to the e-mail followups and offered various reasons for not completing the survey. These replies were analyzed and grouped into five categories. Some simply refused participation, usually in a courteous and succinct way. The second category contained responses related to investing time to participate, and the third category included responses from persons who no longer served as deans and thus declined to respond. The fourth group declined to complete the survey because they only answer surveys prepared as part of the business of national organizations or surveys not found at Web sites. The final group declined to answer because they thought the survey was poorly designed or did not capture germane issues of leadership. Although it is not clear that these "repliers" were representative of the nonresponders overall, their e-mail comments provide some insight into nonresponse to Web surveys. (Contains 24 references.) (SLD)

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WEB SURVEYS AS A SOURCE OF NONRESPONSE EXPLICATION¹

Introduction

In 2001, the Higher Education Leadership Instrument (HELI), was developed to assess the construct of higher education leadership; as part of its design, the HELI was administered over the internet (Montez, 2002). In order to increase response, followup messages were sent to nonrespondents by post and electronic mail; over the course of a four-month data collection period, four email reminders were sent. Of the 452 sample members, 55 (12.2%) replied to these reminders, declining participation and, in most cases, explaining their reasons for doing so. Examined through the lens of response behavior theory, this paper reports the unintended consequence of nonresponse explication from true nonresponders.

Nonresponse

A viable source of error in surveys, nonresponse occurs when a respondent is unable to gather information from a sizable portion of the sample, the composition of which may have some characteristic(s) that differ from the respondents (Dillman, 2000; Salant & Dillman, 1994; Yu & Cooper, 1983). In other words, nonresponse poses a threat to the survey's external validity--the ability to generalize that the nonresponders are representative of the study population under consideration (Viswesvaran, Barrick & Ones, 1993).

Understanding antipathy to surveys is essential to optimize use of this medium for research. It is imperative for the following reasons: (a) the world-wide web presents an unprecedented opportunity to study groups of people with a questionnaire of this sort and, as a result, there has been a proliferation of online surveys (Schmidt, 1997; Supovitz, 1999);

¹In this paper, the term "nonresponse" refers to "unit nonresponse," or the loss of one person's response to the entire survey, instead of "item nonresponse," which indicates the person's failure to answer one or some of the items in the survey.

(b) internet-based survey research has often resulted in inadequate levels of participation (Pitkow & Recker, 1995),² and (c) there is a stated need that online research demands data collection and analysis methods that are medium-specific (Witmer, Colman & Katzman, 1999).

Still, there is little explanation of nonresponse itself (Bosnjak & Tuten, 2001). Indeed, what nonresponders "look like" and why they become nonrespondents is a rarely known bias source in survey investigations (Lubin, Levitt & Zuckerman, 1962). Given the difficulty in assessing the true nature of nonresponse, more has been written about techniques for increasing response rates and/or for estimating or correcting for nonresponse bias post survey (Bosnjak & Tuten, 2001; Dillman, 2000; Groves, Cialdini & Cooper, 1992).

Where research efforts have concentrated on explaining nonresponse, most study designs have focused on:

1. Variations in response behaviors from surveys about nonresponse ("surveys on surveys"), where surveys asked why persons do not respond to surveys and the respondents' input was used as the basis for nonresponse (Bosnjak & Tuten, 2001; Goyder, 1987; Sjoberg, 1954);
2. "Record-linking," where sociodemographic information on sample individuals was obtained through internal and external sources, then compared for respondents and nonrespondents (Ellis et al., 1970; Robins, 1963); or

²Indeed, although a 50% response is typically considered minimally adequate for much traditional survey research (Babbie, 1998), response rates around 20% are not uncommon for unsolicited surveys and response rates to online surveys may be 10% or lower (Patrick, Black & Whalen, 1995).

3. Panel studies, where repeated enumerations of a survey were given to the sample and responses and sociodemographic characteristics of those who fell from the panel were then compared to those of the sample who remained (Goyder, 1987).

In other words, most data that exist about nonresponse have been based on responses given in surveys and the conclusions derived therefrom that were imputed, based on presumed sample characteristics, to nonrespondents. There is little that reflects the impressions of true nonresponders (Bosnjak & Tuten, 2001).

In their work with internet surveys, Bosnjak & Tuten (2001) devised a methodology that allows for understanding the underlying psychology of response. While the method they employed tracks the process and progress of sample members in accessing a survey website, the end product does not distinguish whether nonresponse was based on refusal or on inability to access the website. In other words, though their study profiled respondents' activity (or the lack thereof) at the website, they were unable to explain *why* the choice to not respond was made (Bosnjak & Tuten, 2001).

This problem was also addressed by Goyder (1987):

Asking nonrespondents to at least articulate motives for refusal . . . is worth considering in combination with other forms of evidence, but taken in isolation remains severely limited. That those hostile to surveying will deliver well-considered attitudinal reports to the fieldworker surely is debatable. p. 21-22

Response Behavior Theory

Early response behavior theories focused primarily on sociodemographic categorization of respondents and the deficiencies of those who did not respond. Indeed, nonrespondents were often regarded as deviants, members of a "socially isolated underclass" (Goyder, 1987, p. 15).

Others referred to them as "bad buys," where responders were "good guys" (Kirchner & Mousley, 1963). In these earlier studies there was a presumption that nonresponders were less educated, had lower occupational status and had lower incomes (Goyder, 1987).

Obviously, these earlier conclusions were drawn from experimental studies that focused more on mechanics of the study than the subjects themselves, resulting in a lack of "natural variance" (variation in response behavior attributable to humans). Best efforts to describe nonresponse were couched in terms of sample members' refusal to respond, their inability to respond, or their inaccessibility to the researcher (Williams, 1978).

Rather than categorizing nonrespondents according to sociodemographic status, Goyder (1987) argued that response (or nonresponse, as the case may be) behavior is a "rational decision making [process] in which the respondent balances costs against reward for action." (p. 163) The notion of response behavior as social exchange (i.e., there is a promise of a reward in exchange for little expenditure of cost and the expectation that doing something will outweigh the costs) was most popularly advanced by Dillman (2000). The practical effect of this theory is that respondents answer surveys if some "thing" (personalization of contact, association with an authority, financial incentive, aesthetically pleasing document) is given in return.

Goyder's concept of response behavior is that it possesses both a rational (conscious, volitional) as well as a deterministic (nonresponse is a reaction to the social environment) component. It is this synthesis of behaviorism and voluntarism, he argues, that enriches understanding survey response behavior (1987).

Goyder asserted that respondents choose to answer surveys and nonrespondents invoke the same decision-making consciousness; in other words, they simply make the decision *not* to respond:

Nonrespondents assess the costs and benefits of participation in a survey differently than respondents do, these calculations resting on matters as deep within the practical consciousness as an unarticulated sense that social research seldom serves the collective interests of their class or generation, and as near the top of the discursive consciousness as the resistance of professors indifferent to computers to responding to survey questions on that topic; . . . and as profound as a careful judgement that surveys erode the dignity of the individual. Part of the explanation for response behaviour rests on people's assessments about the merits and demerits of surveys in general, but as much, perhaps more, is unique to the particulars of each survey. (p. 187)

Groves, Cialdini & Couper (1992) articulated a model that incorporates influential and psychological response factors, a model that lends a framework to Goyder's nonresponse multidimensionality. The influence factors that affect response are societal characteristics (social responsibility, perceived legitimacy of social institutions), survey design attributes (contacts, length and topic of survey), sociodemographic (age, gender, income, health status), and the resulting interaction of these influences (Groves et al., 1992).

The psychological factors explain a respondent's decision to comply with survey requests. The survey's attractiveness (the interest value and personal relevance of the survey to the respondent as well as the cost in time, energy, and resources to perform it) is a common deciding factor for response participation (Groves et al., 1992). In addition, Cialdini (1988) outlined six principles that explain respondents' decision to comply (or not) with a survey request:

1. Reciprocation--where the respondent should be willing to comply with a request to the extent that compliance constitutes repayment of a perceived gift, favor, or concession;
2. Consistency--after committing to a position, the respondent should be more willing to comply with requests for behaviors that are consistent with that position;
3. Social validation—one should be willing to comply to the degree that similar others comply with the request;
4. Authority—the respondent would be more willing to yield to the requests of someone perceived to be a legitimate authority;
5. Scarcity—one should be more willing to comply with requests to secure opportunities that are scarce; and
6. Liking—the respondent should be more willing to comply with the requests of liked others (Groves et al., 1992).

HELI

The *Higher Education Leadership Instrument (HELI)* was developed to assess five dimensions of the construct of higher education leadership, and the author's dissertation described the instrument's developmental and pilot processes (Montez, 2002). Considerations that informed the decision to administer this study over the internet were the growing popularity of this medium for conducting research, the proliferation of this technology in higher education, and the potential to more easily access the target population (Dillman, 2000; National Telecommunication & Information Administration, 1999). In addition, because web surveys are dynamic interactive forms, their usage has been shown to enhance respondent motivation

(Dillman, 2000; Schmidt, 1997). Cost was also a consideration; administering a web survey has been shown to be low compared to traditional pencil and paper survey techniques (Dillman, 2000; Pitkow & Recker, 1995; Schmidt, 1997).

A domain was acquired for this survey and a website was created and maintained by a third-party internet service provider (ISP). In order to prompt respondents to provide thoughtful and accurate responses, *HELI* design features included program protocols written to allow automatic feedback in the form of repeating scales, generate a status report on the number of questions remaining for answer, and issue alerts of incomplete or unacceptable responses (e.g., numbers instead of words) (Schmidt, 1997). Program subroutines were also written to prevent multiple submissions, preserve data integrity, and protect respondents' anonymity. Access was only allowed by using a unique PIN which was assigned to each respondent. Respondents were able to save their responses for later return and revision; however, once the instrument was completed and submitted, further access was denied.

The *HELI* was constructed in accord with Dillman's (2000) design principles for internet surveys. The instrument contained 64 scales, a series of demographic information requests, and several open-ended questions about respondents' impressions of the instrument and/or its administration. The survey instrument was prepared using Microsoft Word and posted to the website as an HTML document. The introductory page contained a welcome message and a fill-in box into which the PIN was typed. The author's email address was provided on this page to facilitate any questions or concerns that respondents had before proceeding to the instrument. A Microsoft Excel spreadsheet containing the respondents' names, email addresses, PINs, and other identifying information was prepared and also served as the data capture document. On verification of the PIN with the respondent's name in the spreadsheet, the data entered at the

HELI website were written to a Microsoft Standard Query Language (SQL) database maintained on the ISP's server. Javascript was used to validate that the required fields contained data. Open Database Commands (ODBC) were used to transform the SQL data into Excel format and the data were posted to the spreadsheet. Only the researcher was allowed to manage access to the website and to download the Excel spreadsheet containing the most current collected responses.

A sample of 452 deans of colleges of agriculture, arts & sciences, business, education, engineering, and nursing was randomly drawn from the *Higher Education Directory*, 2001 ed. (Rodenhouse, 2000). Notice of the study was first made by mailing a letter to each respondent, advising of his/her selection for participation and providing background information on the study. The letter also contained a 3"x5" card that contained the URL ("uniform resource locator," or address) of the HELI website, the available time frame for completing the web survey (July through September, 2001), the personal identification number (PIN) assigned to the respondent, and an email address for the researcher.

The initial letter and PIN were mailed to sample members in July, 2001 and the HELI website went "live" with data collection beginning on August 1, 2001. Given the increasing trend of email use for people in their jobs, it was decided to use this medium for several follow-up contacts (Dillman, 2000; Salant & Dillman, 1994). A total of six reminders were made, two by postal mail, and four by email. The survey protocol was modified midway through data collection to offer an optional paper version of the HELI. The paper version closely matched the web version, including paper color and font styles, with wording changes made only to delete references to the internet. All sample members who had yet to respond to the HELI were advised of this modification. Data collection was terminated in November, 2001.

Findings

In all, 232 responses were received from the deans in the sample (5 were returned for lack of a good postal or email address), for a response rate of 51%. Of this number, 16 answered the paper version of the HELI (6.9%). In the process of trying to achieve a higher response rate in this study using email follow-up contacts, an interesting phenomenon emerged. Of the 218 deans who did not respond to the HELI, 55 sent replies to the email followups and offered various reasons for not doing so. (It is uncertain how many of the 55 nonrespondents actually accessed the survey items before declining to answer, but none used the open-ended questions at the end of the survey to convey their thoughts.)

The 55 nonrespondents' communications were compiled and analyzed, following the convention on data management and analysis described by Huberman and Miles (1994). The data were coded for similarity then condensed. A text matrix of similar themes was then constructed, allowing a display of the items for analysis; patterns and themes and how they clustered were noted and are discussed below.

Five categories derived from these responses. In the first category, the nonrespondent refused participation without citing any reason therefor. Most responses were courteous and succinctly worded:

I am sorry that I am unable to help you

I do not plan to take part in this survey

I decline to participate

The second category included responses related to investing time to participate.

Examples given were:

Dean [Doe's] schedule will not allow her to participate.

I already tried to respond, so I am not inclined to invest more at this time.

I am sorry, but I do not have the time to participate in this study.

Some respondents stated that they could not answer because they were far behind in their work, and one stated an overcommitment to other projects did not allow for taking time to complete the survey. One dean noted that he had attempted to complete the survey on the web, but was unable to, and thus declined to attempt it again for lack of time. (However, this dean did express an interest in the instrument and "suggested to some of our doctoral directors that they use the same technique.") Several provided additional reasons for not finding the time to complete the survey, such as having to complete a large grant proposal, being trapped in New York during the week of September 11, 2001, and covering the responsibilities of an associate dean who had just died. One dean noted there was never a convenient time to complete the survey, as "dozens" were filled out each month.

The third category included responses from persons who no longer served in the position as dean and, as such, declined to respond. However, almost all of these deans provided the names and email addresses of their successors.

The fourth group of persons declined to respond because they "only answer surveys that are prepared as part of the business of national organizations, such as AACTE" or those that are "not found at websites."

The last group of nonrespondents declined to answer because they felt the survey was poorly designed, or did not capture germane issues of leadership. One person stated the items were not "sufficiently refined to enable a knowledgeable person to reply conscientiously, without thinking to himself or herself, 'This question offers insufficient options or suggests by its language ideas that are not true, and so I cannot reliably answer it.'" Another person stated

"Expecting recipients to go to websites and provide answers to lengthy forms is really not a very realistic, or collegial, manner of collecting information."

Discussion

The five categories of nonresponse reasons provided insight into the rationale employed by some deans for not responding to the HELI, and confirmed several of the factors described in Groves et al.'s (1992) model. The first group simply refused to participate, citing no reason for doing so.

Though lack of time and being too busy were cited the most as impediments by the second group, these deans conscientiously took the time to explain *why* they were unable or unwilling to respond. The nonrespondents in this category exhibited noncompliance with the request to participate because of the cost in time, energy, and resources to them (Groves et al., 1992). That they provided a reason for their nonresponse on this basis underscores Goyder's (1987) statement that "... the 'irrationality' [that] survey researchers might feel tempted to assign to those who refuse a survey is fully rational from the actor's [nonrespondent's] perspective." (p. 186) Here, the respondents rationalized that the expense of time to complete the survey was outweighed by the reason they gave.

In the third category, some deans who had earlier stepped down from their positions replied by sending their successors' addresses, allowing the new dean to answer in his/her stead. Though invited to participate, most of these former deans declined to answer, stating "I am no longer a dean." The responses in this category fit the "social validation" factor, where compliance occurs because similar others (i.e., deans) do so. The declining deans evaluated their position (by virtue of retirement or "stepping down" from the deanship) relative to others and the lack of similarity apparently drove their decision to not participate.

One way of handling the overwhelming number of surveys that deans receive is to be selective about those that they do care to answer. The fourth category of nonrespondents grouped deans who choose to answer only surveys from specific organizations or associations and decline response to the rest. Clearly, this reasoning supports Groves et al.'s (1992) "authority" factor, which states that survey compliance occurs if it comes from a properly constituted, legitimate authority. In other words, a respondent would rationalize that a study's affiliation creates sufficient trust that the study has some legitimacy. The HELI had no sponsor and, thus, the sample members in this group obviously found no reason to legitimize it.

The last category of nonrespondents captured comments from deans who consciously refused to respond, stated their decision, then explained their rationale for doing so. Examination of their messages clearly reflects a greater thought process beyond simple compliance or declining to respond; indeed, it belies the "ignorance and incapacity to reflect" on the part of nonrespondents as earlier studies had postulated (Goyder, 1987, p. 186). For example, the respondent who felt the HELI did not capture germane issues of leadership went on to explain what those issues were and why she felt they were germane. Her email printed out to almost two single-spaced pages--the time to drum out this response surely equaled or exceeded that for completing the survey. Another respondent followed up his initial email with another in which he articulated further thoughts about the inappropriateness of web surveys in a construct validation study.

The respondents' insights were very keen and, surely, would not have found place in any of the response categories provided in the web survey. This last category of reasons is perhaps the strongest evidence of nonresponders' volitional, rational mechanism at work.

Study Limitations, Implications, and Recommendations

In this study, email followups were used to remind sample members to complete the HELI. Rather than doing so, nonrespondents used this means to explain their nonresponse, perhaps because it more quickly captured and conveyed their thoughts and impressions. It seems unlikely that a post-mailed reminder would have elicited the same response.

And, though some light was shed upon the issue of nonresponse, it is still uncertain that these nonresponders were indeed representative of the nonresponding group. As noted, only 12.1% of the entire sample declined response while explaining their reason for doing so; the remaining 37% were silent.

Another limitation to this study is that the sample comprised a homogeneous population--academic deans drawn from one sample frame. The fact of their advanced education and employment-related accessibility to email and the internet may actually have contributed to the number of responding nonrespondents.

In spite of this contribution to our knowledge of nonresponse, it must be remembered that the purpose of surveys is to elicit the greatest number of responses from sample members. Thus, identifying the reasons for nonresponse must be considered secondary to, or a byproduct of, the survey process, and care must be taken to avoid encouraging nonresponse in surveys that use a parallel response mechanism such as email.

Still, using email as a communication mechanism during the web survey administration in this study offered a prime opportunity to explore the issue of nonresponse. Though the HELI continues to be refined, it is expected that the protocol for its administration will not change; followup email reminders will continue to be used and, in all likelihood, further data will be added to this small but significant nonresponse database.

Affording sample members this low-cost means to say "something" about why they chose not to respond undoubtedly will contribute to further understanding of this phenomenon which in turn will inform future web survey study design. As we continue to learn more about true nonresponse, our knowledge will inform improved and changed ways to optimize response in surveys. Groves et al.'s (1992) model provides an excellent framework to guide such change. As nonresponse manifests itself through email replies outside the web survey, comparing them against the model will clarify the work to enhance response in that area. For example, where sample members decline to participate because the instrument lacks authority, the researchers may seek sponsorship from an organization to provide legitimacy in future study administration. Similarly, sample members' refusal to participate for lack of time may inform a revision in design to allow for longer periods of data collection, improved means to suspend survey completion without data loss, or the production of an optional paper version of the instrument so the responder can choose the time or location for its completion.

Beyond surveys, the data gathered in this study argue for augmenting the research design with qualitative methods, such as interviews or written narratives, to account for the responses of those sample members who wish to contribute their knowledge but through a different vehicle than a survey. Employing a variety of methods in research more completely defines the construct under study (Babbie, 1998). As we continue to fine-tune web surveys, it might be worthwhile to examine possibilities for conducting qualitative research over the internet, either independent of, or simultaneously with, the web survey. Clearly, with well developed controls built into design, research over the internet has yet to be exploited.

Conclusion

As the internet continues to gain popularity as a preferred medium for survey administration, research that can identify the sources of bias to reduce nonresponse will help to validate its use. This unintended outcome of the HELI study has given us a glimpse of true nonresponse and it is hoped that its small contribution adds to that research.

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